

## BMTS Article Digest November - December 2015

BMTS Pedestrian & Bicycle Advisory Committee Members:

The following is a compilation of articles that may be of interest to BMTS Pedestrian & Bicycle Advisory Committee members. This and past digests can also be accessed in the Pedestrian & Bicycle Advisory Committee page of [www.bmtsonline.com](http://www.bmtsonline.com).

Scott

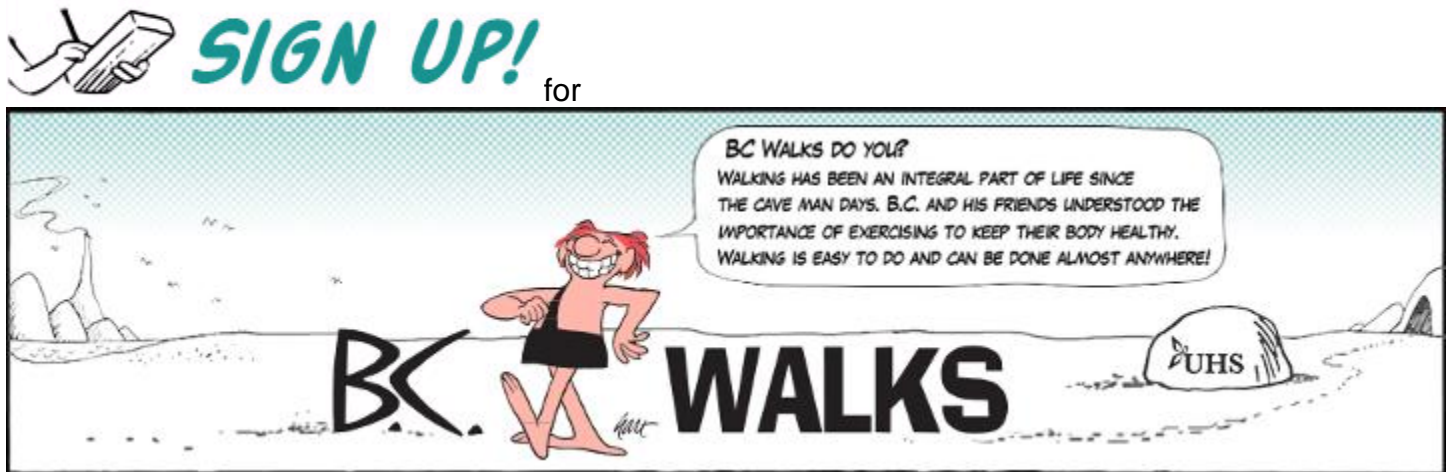


Take a look at the National Center for Bicycling & Walking's newsletter, **CenterLines**. You can also arrange to have it emailed directly to you.

See <http://www.bikewalk.org/newsletter.php>.

**CenterLines** is the bi-weekly electronic news bulletin of the National Center for Bicycling & Walking. **CenterLines** is our way of quickly delivering news and information you can use to create more walkable and bicycle-friendly communities.

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Go to [www.BCWalks.com](http://www.BCWalks.com)!

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Check out this website for Bike & Pedestrian Information!



[www.coexistnys.org](http://www.coexistnys.org)

In particular, view the interactive educational video clips.

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## Parking study findings shared

**MEGAN BROCKETT**

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A firm hired to conduct a study of parking in downtown Binghamton presented their initial findings during a public meeting on Wednesday, telling a group of about 20 people gathered in the lobby of the Metro Center that inconvenient parking was a top reason people cited for not coming to downtown Binghamton more often.

Representatives of the firm Nelson/Nygaard, which began their study in June, painted a picture of the state of parking in downtown Binghamton, including the perception of parking held by residents, employers, customers and other stakeholders.

A final report from the firm is due early next year.

About 65 percent of people said they don't go downtown more often because they believe parking there is inconvenient, according to an online survey by the firm. The survey received 965 responses, firm representatives said.

Nearly half of all the survey takers said that it takes them up to five minutes, on average, to find parking downtown.

A reason for that, and for the perception that parking is inconvenient, may be a mismatch in people's parking preferences and parking availability.

The study found that people in Binghamton prefer on-street parking over off-street parking, like the ramps.

But during peak hours, on-street parking in the core of downtown is often difficult to find, while the ramps have more availability, the study's initial findings show.

"Somewhere in downtown Binghamton, there are spaces available, but by the time you figure that out, you've already gotten frustrated," Ralph DeNisco, of Nelson/Nygaard, said. That presents a problem for downtown businesses looking to attract customers, according to DeNisco.

Among its initial considerations, the study suggests exploring the possibility of adding more on-street parking spaces in core downtown areas and improving signage around downtown to better show where parking options exist. Clearer and easier-to-see signs on the parking ramps showing rates and telling drivers where to enter and exit could also improve user experience, Nelson/Nygaard said.

Binghamton Mayor Richard David has said repeatedly that a better understanding of parking downtown — both now and what it might look like in the future — is imperative to the economic development of the city.

The parking study looks closely at the number and location of parking spaces that exist downtown, the different parking regulations and user preference when it comes to what people are willing to pay and how far they are willing to walk.

On Wednesday, Nelson/ Nygaard representatives said a total of about 10,000 parking spaces — both open to the public and restricted — exist in the area that the study deems downtown. That count includes the now-closed Collier Street parking garage.

The geographical scope of the study stretches from the Susquehanna River in the south to the railroad tracks that run behind NYSEG Stadium in the north. The Chenango River makes up the western boundary of the study area, while the Susquehanna River and Route 363 comprise the eastern line.

The estimated cost of the study is \$100,000 and is set to be split between the Binghamton Metropolitan Transportation Study (BMTS) and the city. The firm expects to hold a final public meeting in January.



**Nearly half of all the survey takers said that it takes them up to five minutes, on average, to find parking downtown.**

**People look at maps of downtown Binghamton ahead of a presentation Wednesday in the Metro Center by a firm hired to do a study of the city's parking.**

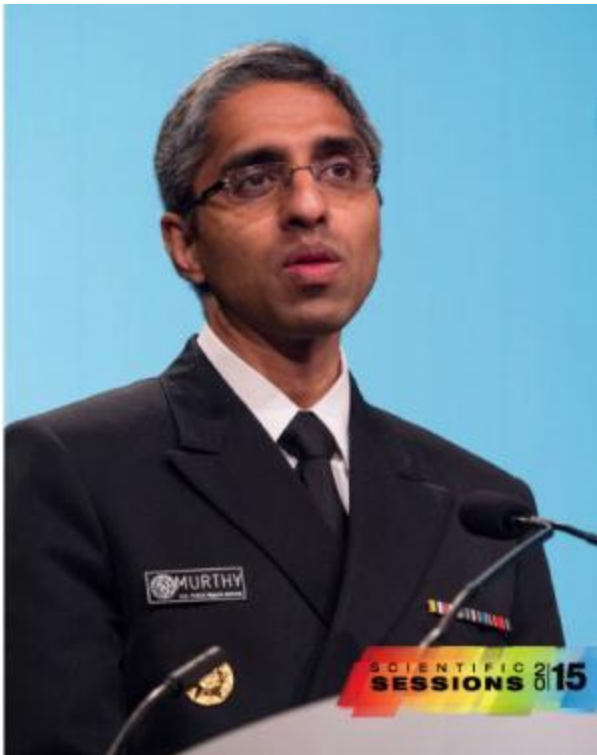
MEGAN BROCKETT / STAFF PHOTO

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PreventObesity.net

## Surgeon General: Medical professionals must boost emphasis on prevention

November 19, 2015 — *Allyson Frazier*



By American Heart Association News

ORLANDO, Florida — As a youngster in Miami, Vivek Murthy enjoyed hanging out at his dad's primary care practice. Being around those patients and learning their problems prompted an insightful diagnosis: So much of what brought them into the office was preventable.

These days, as Surgeon General of the United States, Murthy is doing something about it. And he wants the rest of the healthcare community to join him.

Speaking last Tuesday at the American Heart Association's Scientific Sessions in Orlando, Florida, Murthy provided a series of anecdotes highlighting grassroots efforts that are getting people to eat better and move more. The stories served as building blocks for his call-to-action — encouraging clinicians and researchers to find more, and more modern, ways to help.

“Now is the time for us to expand our definition of success when it comes to health,” he said. “Success should be the patient who never has to walk through the door of a clinic or a hospital in the first place.”

Murthy emphasized that our nation's longstanding efforts to fight diseases have produced “some of the greatest treatments in the world.”

“That’s something we should be proud of and continue to advance and invest in,” he continued. “But the result also is that we have an explosion of chronic disease that’s responsible for seven out of 10 deaths in America and well over \$1 trillion in healthcare costs because we have failed to prevent illness as effectively as we treat it.”

Murthy said the key elements in building “a culture of prevention” are information and environment. Each presents a unique challenge.

“We have to recognize that people don’t get their information the same way they used to 30, 40 years ago,” he said. “That’s why we have to be creative about using different messages, using different messengers and employing different platforms to reach people where they are, to ensure that the maximum number of people are getting the information about health that they need.”

For instance, his appearance on Sesame Street talking to Elmo about the importance of vaccines.

Yet information is only a start. After all, he said, most people know they should exercise more or eat better. The struggle is getting them to do it.

That’s where the environment comes into play, such as cities and workplaces making healthy choices easier and more affordable.

Some examples:

In Wabasso, Florida, community leaders fixed up sidewalks and turned vacant lots into parks. Better lighting went up, making those areas safer and more inviting. “Just two years later, 95 percent of residents surveyed in Wabasso had actually increased their activity levels,” Murthy said. “And when asked why, they cited the improvement in the number of walkable spaces and safe lighting that pushed them to go out and be more active.”

“Food deserts” are areas where healthy food is unaffordable or simply not available. Murthy noted that this includes neighborhoods as well as workplaces where cafeterias, vending machines and nearby stores are packed with unhealthy options. Such environments can be turned around, though. Just last week, Murthy visited a school in Chicago where teachers and students are growing fruits and vegetables on campus and then turning them into meals. He’s seen similar programs at other schools and through community gardens. “What’s so interesting,” Murthy said, “is these programs, simple as they seem, have a powerful effect on shifting preferences and practices, not just for kids, but for their parents, too.”

“Given that we know that diet and physical activity are powerful factors in the development of chronic illness, we can’t afford not to change our environment to make healthy choices easier,” Murthy said.

Murthy acknowledged that the healthcare professionals in the audience likely haven’t been trained in modern communications or taught how to change environments. And he noted that taking on such roles, in addition to other burdens tugging at them, wouldn’t be easy.

Yet he urged his colleagues to try. He even offered one more example, the saga of Dr. David Sagbir, a cardiologist from Westerville, Ohio.

After years of counseling patients about diet and exercise, he found that only a handful of patients were getting the recommended 150 minutes per week of physical activity. So he began asking patients to meet him in a park so they could walk together.

More than 100 showed up the first time. Now, there are more than 160 chapters nationwide of an organization he built called [“Walk With A Doc.”](#)

“The patients who participate in this program are 80 percent more likely to increase their level of physical activity,” Murthy said. “The walks they do also provide time for doctors and patients to talk freely and to strengthen their relationship in ways that are often quite difficult in the hustle and bustle of a busy clinic.”

Murthy’s stories all indicate the nation is filled with people willing to make healthier choices – they just need guidance, the kind that he believes medical professionals can and should provide.

“Dr. Sagbir’s example teaches us that we, too, have the potential to bring good health to millions of people by building a prevention-based society,” he said. “That’s what our country needs. And that’s what I hope we can create together.”

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# THE PUBLIC



## *Weighing in on the Future of Transportation in Buffalo*

by  
[The Public Staff](#)

/ Nov. 17, 2015 8am EST

In the decades after the Metro Rail was built in the early 1980s, it seemed as if the dream of public transportation had at best stagnated, at worst died altogether. Business along the newly designed Main Street pedestrian mall slowly deflated, and more and more people opted for suburban living matched

with a car, famously able to get you anywhere in the area within 20 minutes,

But as citizens and government rediscover the promise of urbanism—walkable neighborhoods, community events, less driving-time, efficient delivery of services—we’ve seen development geared towards pedestrians and bikes flourish in the form of [new bike paths](#), Buffalo’s [Green Code](#), and increased talk of expanding the Metro Rail on both ends.

Our city is at an interesting planning crossroads where the population loss finally seems to have been stemmed, and new investment dollars are being spent to restore and accentuate the smart design and rich architecture of Joseph Ellicott’s city, which is relatively compact and has a vastly underrated bus service already. That’s why



public transportation planners are currently researching how to develop a system that matches Buffalo's transportation needs in the present and into the future.

The [Greater Buffalo-Niagara Regional Transportation Council](#) (GBNRTC) has launched a grassroots effort called GO Buffalo Niagara to encourage Western New York commuters to use more sustainable transportation, and in order to do that, they need to know how people move through their lives, quite literally.

If you're interested in the future of sustainable transportation in Buffalo, [you should take the five minutes needed to complete this survey and let the folks at GO Buffalo Niagara know how you go.](#)

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[Press and Sun-Bulletin](#) | [Page B05](#) Sunday, 22 November 2015

## Coming soon to a city near you: Futuristic calm

**Marco della Cava**

USA TODAY

**SAN FRANCISCO** The city of the future has had countless fantasy blueprints, from *The Jetsons* 'pleasant hive of automated efficiency to *Blade Runner* 's dystopian tangle of urban chaos.

The reality is the city of future is closer than you think, as tech companies and automakers floor the pedal on projects from cars that drive themselves to apps that aggregate transportation options.

Conversations with mobility experts here and abroad paint a picture of an urban revolution underway in a patchwork of cities ranging from Seattle to Stockholm. "The main thing with automated and connected tech is to make sure it's reliable first," says Chris Hendrickson, director of the Traffic21 Institute at Carnegie Mellon University.

So what could a successfully networked city of the near future look like? Picture this.

You wake up and open an app that tells you how to leverage the city 's various transit options to get to your appointment. Maybe it's a walk to a bicycle to a bus. Or an autonomous taxi to the downtown perimeter to catch a human- driven ride-hailing option. Or borrowing a car from your apartment building's small fleet.

Once outside, you'll notice community gardens and playgrounds where parking lots once stood. The air will be cleaner and more birds chirp, both due to the preponderance of electric vehicles. Emergency vehicle sirens are less common as automotive accidents decline due to on-board car sensors that track other moving objects and pedestrians. Trucks don't crowd the streets because deliveries are made at night by self-driving vehicles.

"In many ways, we'll be moving back toward the city of the past, and much like in the 18th century we'll be designing around people who are walking, biking and even growing their own food," says Gabe Klein, author of *Start-Up City: Inspiring Public and Private Entrepreneurship, Getting Projects Done, and Having Fun* .

In less than two decades, researchers say, cities could become safer for pedestrians and cyclists and what cars do exist will be small, electric and largely driverless. Under this optimistic forecast, public transit will be efficient, and smart traffic signals will keep the system moving.

This vision is neither guaranteed nor without potentially damaging potholes. Hurdles aren't likely to be technological but municipal. Civic and business leaders will have to agree on costly infrastructure projects that allow sensor-driven vehicles to recognize obstacles. There is also the matter of working out insurance issues so that accidents involving driverless transportation can be resolved. Perhaps the biggest conflicting interest: jobs.

For example, ride-hailing giant Uber has stirred debate over its classification of drivers as contract workers who don't get typical benefits. What's more, it is feverishly developing a team of autonomous-car engineers with an apparent aim to replace the most expensive part of its business proposition: the driver.

"There are some 14 million jobs in the U.S. that involve driving, so getting to this city of the future will be painful due to job losses," says Klein.

# THE CITY OF THE FUTURE

In the future, all transportation options, from a bike to a bus to a self-driving car, may be viewed, booked and coordinated through one smartphone app.

## HIGHLIGHTS OF THE CITY OF THE FUTURE:



Source USA TODAY research  
MARCO DELLA CAVA AND KARL GELLES, USA TODAY

Where cities can find common ground among competing interests, we may see a flight from suburbs to revitalized downtowns.

What's needed most to realize this vision "is coordination above all," says Mathieu Lefevre, executive director of the Paris-based New Cities Foundation, a nonprofit focused on urban renewal.

"Urban transportation of the future is already here, between driver-assisted cars, ride-sharing, car-sharing, mapping devices and these sorts of things, and all that remains is a one-swipe pass that connects them all," says Lefevre, noting Paris' recent car-free day.

But he points out there could be resistance to the car-free future among some countries with newly minted middle-class residents. "In places like China and India, the car remains a symbol of having made it in life," he says.

Helping to push the U.S. makeover are Silicon Valley start-ups such as car-parking service Luxe, which operates in half a dozen U.S. cities. Luxe recently made a deal with a San Francisco developer that decided against building space-consuming parking. Instead, it will provide Luxe's app-based valet service, which shifts cars between existing garages depending on capacity.

"Parking is at the intersection of transportation and real estate," says Luxe CEO Curtis Lee. "Parking lots are terrible for society, and many growing urban centers are experiencing a crunch of cars."

A host of U.S. cities have embraced the challenge to make their downtowns hum with efficiency.

"The Twin Cities (Minneapolis- St. Paul) are among the leaders in bike- and car-sharing services, Indianapolis has BlueIndy (a fleet of rentable electric vehicles), and Austin (where Google is now testing its prototype driverless car) has lots of app makers focused on this space, like Ride Scout," says Susan Shaheen, codirector of the Transportation Sustainability Research Center at the University of California-Berkeley.

RideScout was started by two Army veterans who wanted an app that could present commuters with a range of transportation options — train, bus, taxi, bicycle — to a given destination. Last year, Daimler bought RideScout, one of the

German automaker's many transportation-related acquisitions that include car2go, a car-sharing service now in more than a dozen U.S. markets.

Audi recently announced an addition to its car-sharing program, Audi On Demand. Called Audi at Home, the service starts soon in two exclusive apartment buildings in Miami and San Francisco, whose residents can get access to the buildings' assortment of Audi cars by the hour or day.

Most transportation researchers agree that livability in urban centers is directly tied to "reducing the number of vehicles in those cities," says Paul Mackie of Mobility Lab, a research start-up funded by Arlington County, Va.

"It all starts with technology," he says. "We've been programmed for so long not to consider public transit options because we aren't sure if we can count on them. Once we can efficiently get somewhere by transferring between a variety of options, everything will change."

In Helsinki, public agencies, academic institutions and private companies are working with the non-profit ITS Finland to coordinate the gradual rollout of a transportation-focused option.

"The goal is enabling a good life for all citizens even if you don't have a car," says ITS Finland CEO Sampo Hietanen.

Cities have always been about the fast and efficient flow of commerce. In the end, the city of the future will be green — both in terms of its footprint and its ability to generate profits.

**"We'll be designing around people who are walking, biking and even growing their own food."**

**Gabe Klein**, author of "Start-Up City"

MARCO DELLA CAVA, USA TODAY

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## METRO - Security and Safety

# New collision avoidance technology for buses increases pedestrian, cyclist safety

Posted on December 1, 2015 by Alex Roman, Managing Editor



In October, the Metropolitan Transportation Authority's (MTA) New York City Transit (NYCT) began a 60-day pilot program to test the Mobileye Shield+ System, which combines multiple smart vision sensors manufactured by Mobileye with a driver interface manufactured by Rosco Vision Systems, on two buses out of its Flatbush Depot.

The new solution yields simple left, center and right alarm interfaces that communicate audio and visual alerts to drivers based on the location of a pedestrian and severity of the threat. Whether a straightaway or turn, the multi-vision-sensor system is tuned with



sophisticated algorithms and Mobileye's experience to filter out pedestrian proximity that is non-threatening. It also locks in and follows pedestrians and their course if they are deemed to be collision likely.

Utilizing an intelligent vision sensor that works like a bionic eye, the system identifies a diverse and extensive variety of potential dangers on the road, such as vehicles, cyclists, pedestrians and more. The distance and relative speeds of these objects are continuously measured to calculate the risk of the driver colliding with them, even lane markings and traffic signs are detected.

[Video: Rosco Vision's Scott Coleman at BusCon 2015](#)

The system provides two distinct displays — solid yellow to alert the driver a pedestrian or cyclist is detected around the bus, but is in a safe area. And, a blinking red alert with audible beeps notifies the driver of a pedestrian or cyclist that is in the bus collision trajectory — with the latter informing drivers in sufficient time to make a corrective action before a collision occurs.

“It is challenging to operate a bus, so there clearly was a need in the marketplace for systems that would intelligently alert the driver to the presence of vulnerable road users, including pedestrians and cyclists,” said Rosco's VP, Engineering, Ben Englander.

Rosco worked with Mobileye to adapt their “smart” camera systems and package them for exterior mounting on large vehicles. The four IP67-rated cameras situated around the vehicle provide coverage of forward-facing blind spots and critical areas around the side and front of the bus.

The two cameras situated on either side of the bus can detect pedestrians and cyclists who either enter the crosswalk and the bus drivers' blind spot without noticing a bus is making a left turn or walk directly in front of or into the side of the bus when it is making a right turn.

Meanwhile, two forward-facing cameras provide both forward collision and headway monitoring/following time warnings, which alert drivers to an imminent, rear-end collision with a car, truck or motorcycle moving at any speed.

The Mobileye Shield+ System utilizes four smart cameras (above), situated at the front and side of a transit bus, to detect pedestrians and cyclists and provide warnings to the driver (below), who can then take corrective actions to avoid a collision.



The system also includes speed limit indications, to notify the driver if the vehicle exceeds the posted speed limit, and lane departure warnings, to alert the driver if the vehicle leaves the lane without use of a turn signal.

One of the side benefits of installing the system on a bus is it enables the driver to maintain safe following distances, eliminating the need for constant braking and acceleration, resulting in measurable fuel savings as well as extended brake life.



Englander explained that the system is highly accurate, with the company working over the last year with Mobileye to make sure the settings, camera placement and programming are fine-tuned to alert when there is a vulnerable road user at risk and not create false alarms.

“That is the intelligence of the system; the Mobileye camera can see up to 100 pedestrians in its field and calculate their movement to see which ones are at risk to the movement of the vehicle and which ones are not,” said Englander. “The big accomplishment for this system is that it will, in essence, filter and only alert when it should.”

As for the NYCT pilot, if it is initially successful, the agency plans on installing the Mobileye Shield+ System on 200 additional buses for testing in 2016.

In addition to the NYCT pilot, the Washington State Transit Insurance Pool (WSTIP) has launched a 35-bus pilot program, which includes Everett, Wash.’s Community Transit and Lakewood’s Pierce Transit, with 20 buses already set, as of press time, and Rosco set to complete the installation of all 35 buses by the end of the year.

Seattle’s King County Metro will test the system on three of their buses, with several other transit authorities in the process of setting up agreements with the company to pilot the system.

So far, Englander explained that feedback from the two pilots has been positive.

“There are two very positive things that stand out among what we have heard; one is that the detection mode of our system is giving drivers awareness of their surroundings when there are vulnerable road users around that they aren’t necessarily on a collision course with,” he said. “The second thing is that our contact at MTA has expressed extreme satisfaction with the system that it’s operating as advertised. In other words, there aren’t these potentially worrisome false alarms that would distract the drivers or make them unwilling to use it. The system is operating quietly unless it needs to alert. That is a really big deal because in certain technologies that have existed for some time, there is a propensity for false alarms, and this technology has been refined and fine-tuned.”

In addition to the pilots, Rosco has also created a test bus that has been traveling around the country, including stops at the American Public Transportation Association's Bus & Paratransit show in May and BusCon 2015 in September.

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## Santa swings by Vestal Coal House



Vestal Coal House Owner Mark Mushalla starts local children out on a race during a Christmas event Dec. 6

**Shannon Hazlitt,**  
7:18 a.m. EST December 7, 2015



(Photo: Shannon Hazlitt/Staff Photo)

As he listened to acoustic Christmas songs Sunday, Lincoln Thomas, 3, was so excited he could barely sit still.

His father, Nate Thomas, 33, who owns a crossfit gym in Candor said his son had been buzzing about the house all morning, chattering about running in his first competitive race at the Vestal Coal House.

The race was part of the third annual Christmas at the Coal House event.

"Anytime he can have fun while getting a little bit of fitness in is always good," Thomas said.

Lincoln and his father were two of many in a steady stream of visitors to the Vestal Coal House on Stage Road in Vestal on Sunday afternoon for the free event. It included time for kids to sit with Santa Claus, listen to Christmas caroling classics by a local performer and compete in a timed race of up to a mile.

The most popular attraction, as in years past, was the chance to sit with Saint Nick, said Andy Mushalla, the Vestal Coal Houses' events coordinator.

Children who visited Santa received a free toy or the book *The Night Before Christmas*.

A line of parents and children waiting to meet Santa filled the upper area of the Vestal Coal House for most of the event. Photos were free for parents who brought their own cameras.

Jessica Terry, 38, from Vestal said that while her son was a bit shy about meeting Santa, she thought the event was a fun way for kids to get out of the house and enjoy less commercialized Christmas fun at a local establishment.

"So many people get carried away with buying and getting, it's nice to just enjoy the music and get into the spirit of things," she said, as her son looked up at local performer Michael Whitney strumming classic Christmas tunes.

Terry's son Seth, 5, was one of several who decided to participate in the free kids' run that kicked off around 2 p.m. as visits with Santa started wrapping up.

Mark Mushalla, Vestal Coal House co-owner, said most of the events they plan incorporate a fitness activity and they strive to promote a healthy lifestyle. He added most of his nine children have helped with Vestal Coal House events, including many popular community runs, and his wife is in charge of a small cafe now open only for events. Two of his daughters were dressed as elves and helped with the Santa photos Sunday.

Delsa Decker, 59, from Endicott, and David Stephens, 62, from Endicott brought Stephen's four grandchildren, all under 12-years-old, to the Vestal Coal House Christmas.

Decker said she appreciated the establishment's efforts to promote community fitness with the kids' run.

"You hear about all the obesity in this area....It seems like they are really trying to have more runs and improve on all that," she said.

Upcoming winter Vestal Coal House events include a Christmas Cookie Run Sunday, December 20 at 12 p.m., which will include horse and carriage rides. For more information visit:  
<https://www.facebook.com/VestalCoalHouse>.

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## THE HILL

# Obama signs \$305B highway bill

By [Keith Laing](#) - 12/04/15 05:05 PM EST

President Obama signed into a law a five-year, \$305 billion highway bill on Friday, with just hours to spare before the scheduled expiration of the nation's road and transit spending.

Funding had been set to expire at midnight.

The new law, paid for with gas tax revenue and a package of \$70 billion in offsets from other areas of the federal budget, calls for spending approximately \$205 billion on highways and \$48 billion on transit projects over the next five years. It also reauthorizes the controversial Export-Import Bank's expired charter until 2019.

The measure is the first long-term national transportation spending package in a decade. It follows a string of temporary patches that began before Obama entered office.

Ending the pattern of short stopgap funding fixes has been a priority this year for both the Obama administration and Republican leaders in Congress.

Obama has railed against short-term patches, and he noted Friday that the highway bill that he received from lawmakers fell short of a six-year, \$478 billion proposal he sent to Congress earlier this year.



"This bill is not perfect, but it is a commonsense compromise, and an important first step in the right direction," Obama said in a statement ahead of the bill signing on Friday.

"I look forward to signing this bill right away, so that we can put Americans to work rebuilding our crumbling roads, bridges, and transit systems, reauthorize the Export-Import Bank that helps our companies compete around the world, and give local and state governments and employers the certainty they need to invest and hire for the long term," he continued.

Congress has not passed a transportation funding bill that lasts longer than two years since 2005, much to the chagrin of infrastructure advocates in Washington.

Obama proposal relied largely on revenue from taxing corporate profits that are stored overseas to supplement gas tax revenue to pay for transportation projects. Lawmakers largely ignored the administration's plan, turning instead to other areas of the federal budget to pay for the measure they sent to Obama this week.

The new law, dubbed the Fixing America's Surface Transportation Act, or the FAST Act, formally reauthorizes the collection of the 18.4 cents per gallon gas tax that is typically used to pay for transportation projects, and also includes \$70 billion in "pay-fors" to close a \$16 billion deficit in annual transportation funding that has developed as U.S. cars have become more fuel-efficient.

The gas tax has been the traditional source for transportation funding since its inception in the 1930s, but lawmakers have resisted increasing the amount that drivers pay. The federal government typically spends about \$50 billion per year on transportation projects; the gas tax only brings in \$34 billion annually.

Congress has been struggling for years to come up with a way to pay for a long-term transportation funding extension without raising the gas tax. The offsets in the agreement that was announced on Tuesday include changes to custom fees and passport rules for applicants who have delinquent taxes.

Additional mechanisms include contracting out some tax collection services to private companies — over the objection of unions that represent federal IRS workers — and tapping dividends from the Federal Reserve Bank.

Obama said he will keep pushing Congress to come up with more sustainable way to pay for transportation projects than the patchwork of funding mechanisms lawmakers turned to pay for the measure he signed into law on Friday.

"As we applaud the kind of bipartisan compromise that was reached last night, we should also recognize that we still have work to do," he said.

"Congress should pass a bill like the GROW AMERICA Act I've proposed in the past, one that supports even more jobs and invests even more in our roads and highways than the bill passed last night so we can meet our country's infrastructure needs," Obama concluded.